PATENT ABSTRACTS OF JAPAN

(11) Publication number: 11031416 A

(43) Date of publication of application: 02 . 02 . 99

(51) Int. CI

H01B 1/20

G03F 7/004

G03F 7/004

G03F 7/027

G03F 7/028

G03F 7/038

H01B 1/22

H01L 23/12

H05K 1/09

(21) Application number: 10163173

(22) Date of filing: 11 . 06 . 98

(30) Priority:

24 . 01 . 92 JP 04 11146

(62) Division of application: 05009270

(71) Applicant:

TORAY IND INC

(72) Inventor:

MASAKI YOSHIKI YOSHIMURA AKIKO **NOMURA HIDESHI**

(54) PHOTOSENSITIVE CONDUCTIVE PASTE

(57) Abstract:

PROBLEM TO BE SOLVED: To form a fine and low-resistant circuit pattern by including one or more kinds of conductive powder selected from group of Au, Ag, Pd and Pt, an acrylic group copolymer having an acid value in a specified range, a photo-reactive compound and a photo-polymerization initiator.

SOLUTION: A predetermined quantity of one to three kinds of conductive powder selected from Au, Ag, Pd and Pt, an acrylic group copolymer having an acid value at 40-200, a photo-reactive compound and glass flit are prepared. The predetermined quantity of a metal oxide

and a photo-polymerization initiator are added to the described material, and they are mixed and dispersed so as to obtain the paste, and this paste is set-solid on an alumina board, to which a surface treatment is performed, for printing, and thereafter dried. Exposure is performed by using a chrome mask formed with a fine pattern, and development and washing are performed, and thereafter, it is burned at 500°C, and sintered at 800-1000°C. A fine and a low-resistant circuit pattern, which has a film thickness at 12-20 μm , a resolution at 10-60 μm and a specific resistance at 3-18 $\mu\Omega.cm,$ is thereby obtained.

COPYRIGHT: (C)1999,JPO